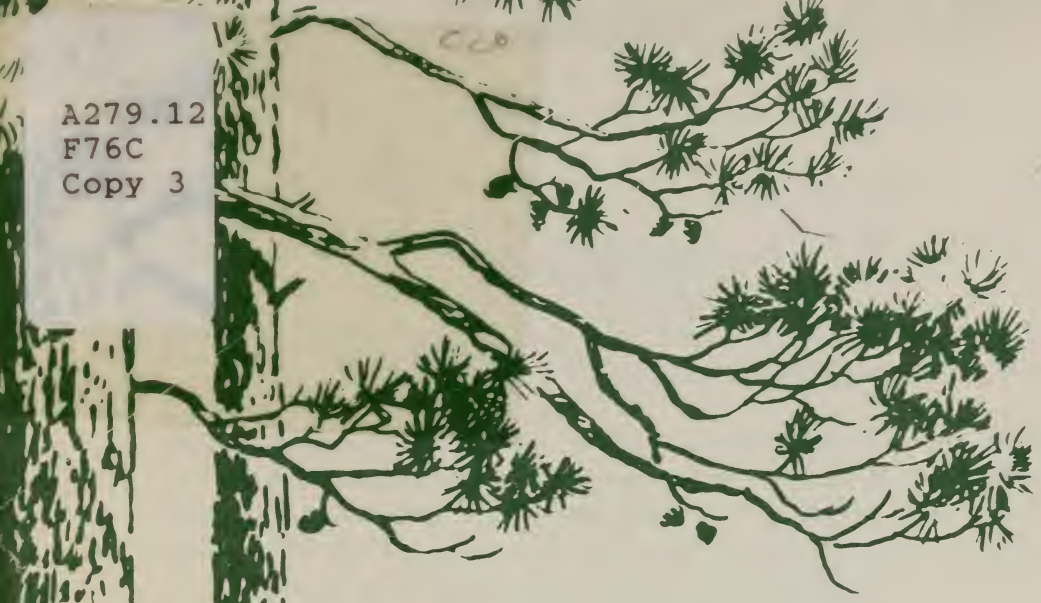

Conservation Activities for Young People

FOREST SERVICE
U. S. DEPARTMENT OF AGRICULTURE
WASHINGTON, D. C.

If co young people,
certa al.

Noth l participation
in ou xperiments.
Elab it takes plan-
ning e excursions,
even ity without
clea -cut summary
is wa

Vaca nds, streams,
and Don't try to
cove ve a few simple
obje st to one phase
of cc means, com-
municate your enthusiasm.

Your conservation demonstration, whether it takes place out-of-doors or under a roof, will be more effective if you have suitable background materials.

For information on forest conservation,
write the U. S. Forest Service,
Washington 25, D. C.

Issued June 1959
Approved for reprinting November 1964

This booklet was prepared by Charles E. Fox, Educational Advisor,
Milwaukee, Wisconsin.

FIELD EXCURSIONS

Observe the effect of a hard rain on denuded soil and on forest soil during a rain or immediately afterward. Observe rills and gullies caused by erosion. Note how washed soil collects above rocks and plants on bare slopes; see how pebbles and rocks become exposed.

1. How can you tell erosion is occurring?
2. What caused the soil to wash away?
3. About how long has soil loss been occurring?
4. Where does the washed soil go?
5. What has happened to the productivity of the land? Why?
6. How can the loss be replaced?
7. How can erosion be stopped in this particular place?
8. What kept the forest soil from eroding?

Visit a large pasture or natural range used by domestic livestock.

1. How many head of stock are run, and what is the season of use?
2. What kinds of plants are growing?
3. Which species appear to be normally grazed? Which grazed too heavily? Which are ungrazed?
4. Are there sizable areas of bared ground?
5. Are there any gullies, broken sod, grazed trees or shrubs, plants on "pedestals," accumulations of washed soil at the base of plants?
6. Is there evidence of rodents? What damage do they do? Are they being controlled? How?
7. Dig down and note depth of topsoil. Compare with topsoil depth in hayfield and in ungrazed woods.
8. Do you think the pasture is being used properly? What would increase production of forage?

Visit a recently cut forest area.

1. Has a satisfactory stand of young growth been left?
2. Were seed trees of desirable species left?
3. Was care used in felling and removing the timber?
4. Did disposal of slash--tops and limbs--receive adequate attention?
5. Are there signs of erosion? Where? What is causing it?
6. What provision is there for fire protection?
7. Is the area in good condition for producing a new crop?

Visit a burned woodland or pasture.

1. Notice the destructive force of fire. Find out cause of the fire, how long it burned.
2. To what depth was soil burned?
3. Review what the fire destroyed, besides the plant cover. (Values for wildlife, streamflow, recreation, fertility of topsoil.)
4. How long will it take to restore these values?
5. Nine out of 10 fires are started by careless people--smokers, campers, burners of brush and debris. What type of person caused this fire? How can a future fire of this kind be prevented? What are the fire prevention rules?

Take a walk or picnic in a park or woodland:

1. To learn the difference between conifers and broad-leaved trees.
2. To learn the names of a few common species of trees.
3. To observe the leaves, trunk, and roots of a tree.
4. To observe the litter, humus, and roots in the top layer of soil and see how they enrich soil, prevent it from washing away, and help it to absorb and retain water.
5. To see how trees make a pleasant place for man and a home for birds and animals.

Visit a forest (a wild piece of woodland, not merely a city park).

1. What are the uses of this forest?
2. What kinds of trees grow here?
3. How many years does it take to produce a forest like this?
4. What is the market value of the products of this forest? (Do fish and game, water regulation, and recreation have a market value?)
5. What method of forest fire control is used? (It may be merely voluntary local cooperation--but there will be some method used.)
6. What is the forest soil like, as compared to soil in an open field, or the cutbank of a road? How deep is the topsoil before you reach mineral soil? In which soil will plants grow better? Why?
7. Make a guess as to how long it takes leaves and twigs on the ground in the forest to decompose and form soil. What is the significance of this?

Visit a sawmill, wood remanufacturing plant, or lumber yard to find out:

1. Source of the raw material.
2. How the wood is sawed and processed.
3. What species are represented.
4. How sorting and grading are done.
5. How seasoning is accomplished.
6. What products are sold.
7. What conservation practices are used for byproducts or waste.
8. Where various products are shipped.
9. Where the operator expects to obtain his future supplies.

Make a trip to a timber-cutting operation. (Arrange for conducted tour; safety is important.)

1. What types of trees are being cut? (Old, decayed, insect-infested, all those over a certain diameter?) Are trees selected or are they "clear cut"? Who selects the trees for cutting? How are they marked or selected for cutting?

2. Which species are being cut? Which are considered the most valuable species? Are there any diseased or insect-infested trees in the uncut forest? How can you tell?
3. Are any provisions being made to see that the new stand will be composed of the more valuable species?
4. What parts of the trees are used?
5. Trace the tree from the time it is selected (marked) to the time it reaches the lumber yard. (Marking, felling, trimming, and bucking, skidding, decking, loading, hauling, processing through the mill, sorting and grading, seasoning, shipping.) Follow similar procedure for products if other than lumber.
6. What provisions are made for preventing fires? For controlling them after they start? (At the mill, and in the woods.)
7. What provision is made for disposing of slash resulting from logging?
8. Where is cutting expected to take place five years from now? Twenty-five? Fifty?

Visit a lookout, or a forest ranger's or fire warden's headquarters to find out how forest fires are prevented, detected, and controlled.

1. Find out the annual number of fires in this area and their causes.
2. How are fires detected and reported?
3. How are fires controlled? What equipment is used? How are men, tools, and supplies obtained? What are the steps in controlling a fire?
4. What damage can forest fires do?
5. Why are burning permits sometimes necessary?
6. What can each person do to help prevent fires?

Visit a pulp mill.

1. What species are used and where does the raw material come from?

2. How many cords are required annually?
3. Trace the manufacturing process.
4. How are waste liquors treated and disposed of?
5. Where is the final product consumed?
6. What is the source of future supplies?

Locate some trees damaged by disease or insects. Ask local ranger, park supervisor, or other authority to show nature of attack, type of damage, and control methods used.

Visit woods that have been grazed. Look for absence of young seedlings, browsing damage of leaves and twigs, injury to soil and roots by trampling, start of erosion caused by trailing of stock to salt or water, bare and hard-packed ground. Dig down and note depth of topsoil. Compare this with depth in cultivated field and in ungrazed woods.

1. What is effect of grazing this woodland? Now? Ultimately?

Visit a forest-tree nursery.

1. Which species are grown?
2. How long are trees grown in seedling beds? In transplant beds?
3. How are beds prepared? How are seeding, lifting, weeding, watering, and transplanting carried out?
4. What provisions are made for protection against rodents, birds, insects, disease, freezing, fire, etc.
5. What is the capacity and annual production of the nursery?
6. How are young trees shipped; where planted?

Visit a forest plantation.

1. Age, species, provision for protection against fire.
2. Plans for thinning. Look for "crown closing."
3. Purpose of plantation.
4. Management and protection of plantation.

5. Possibilities for increasing area.
6. Examine ground to see whether a satisfactory forest floor (litter and humus) is being developed.
7. Are full potentialities of plantation for conservation education being utilized?

Conduct a survey of unsightly and polluted water in the vicinity and report on it.

1. Is it due to local or upstream pollution?
2. What measures are necessary to correct it?
3. What benefits would the community receive by a clean-up or removal of the source of the pollution?
4. Who has the responsibility for taking the necessary steps to correct the trouble?

Visit a creek or reservoir.

1. Take a sample of the water in a glass jar. What is the condition of this water? Let sample stand for three days and observe again.
2. How does vegetation keep the water from cutting the banks?
3. What evidence is there of the great force of flowing water?
4. Where does the water come from, how does it reach the creek, where does it go, what is it used for?
5. What fish species are present?
6. Does the creek flood? If it does, find out why. If it does not, find out why.
7. How does water carry silt. What is silt; where does it come from? How can we prevent loss of topsoil?

Visit community's reservoir or water-treating plant to find out:

1. Where the water comes from. Trace it to its source.
2. What the result would be if trees and shrubs were destroyed on the headwaters. Who uses

the water? What would be the loss to those who use it? What measures are taken to protect vegetative cover on the headwaters?
3. How clear the water is before it reaches the storage point.
4. How much of a problem is silt removal, and what is its cost. How silting could be prevented.
5. Why silt is fertile.
6. What problems floods cause.

Visit as many different wildlife communities (habitats) as possible: stream, streambanks, pond, marsh, cultivated field, abandoned field, meadow, dry hillside, open woods, "edge," thick forest.

1. How do these communities differ as to soil drainage; temperature of soil; temperature of air; amount of moisture present; exposure--sunny or shady, cool or warm; amount of food and shelter; steepness of slope; protection afforded from man and natural enemies?
2. What forms of life are found? (Don't neglect insects, worms, larvae, and soil organisms.)
3. Why does wildlife prefer this location?
4. How do these various kinds of plants and animals depend upon each other?
5. How could living conditions for the wildlife be improved with little expense?

Visit a small stream.

1. What kinds of plants and animals live in and near the stream?
2. What forms of life are found under rocks?
3. What do the fish eat?
4. What are the effects of stream floods on fish food, and streambanks?

Visit a stream or pond where homes of beaver may be observed. Note:

1. How these animals live; food; protection against enemies.
2. Values; effect on streamflow, fish life.

Conduct a survey of unsightly landscape features such as garish billboards; advertising displays; trash; unclean or unkept surroundings; ugly construction; highway dumps; lack of space, grass, trees.

1. How could the unsightliness have been prevented?
2. How can it be corrected?
3. What can be done to improve the appearance of your community now, and in the future?

Visit a public recreation area such as a large city park, a beach, a national or state forest, park or historical monument, or a public campground, on a Monday morning during late May or early September.

1. What is the condition of the area with regard to litter and rubbish?
2. Are facilities adequate to care for visitors?
3. What attractions are different from those offered in the vicinity of your home?
4. Why do people visit this area?
5. Where do they come from? (Note car licenses.)
6. What improvements could you suggest?
7. What government agency administers the area?

Visit well-stocked coniferous and deciduous stands of timber on the same day in the same general area.

1. In which stand does the soil seem to be coarser in feel? Darker colored? Heavier? In which does the humus layer seem to grade more gradually into the mineral soil? Take two cupfuls of each type of soil (excluding coarse bits of litter), put in a quart jar, fill with water, shake well, let stand overnight. Which seems to contain the most humus? (Floating layer and dark top layer.)
2. What is the average depth of forest floor (litter plus dark organic layer) above mineral soil in each type?

3. Which soil seems to be more moist at the same depths?
4. Which type seems to have more tree reproduction and undergrowth?

Visit an ungrazed woodland having a good mixture of species and age classes. Examine the species of young trees and seedlings growing beneath the larger trees.

1. From this, arrange two lists: one of "tolerant" species--those that tolerate shade well, and one of "intolerant" species--those that do not tolerate shade.
2. Which species are most likely to form the final or climax forest if undisturbed?

Visit a forest on a moist or boggy site, and one on a dry upland site.

1. List tree species found on each site.
2. In which area do the trees seem to be growing faster and more vigorously?
3. Which has the more favorable soil conditions? Which site is warmer in winter? Which has the better moisture conditions for tree growth?
4. List kinds of associated plants growing on each site.

DEMONSTRATIONS OR EXPERIMENTS

Outdoors, on a gentle slope, sprinkle water slowly on (1) bare soil and (2) woodland soil. (Use lawn sod as a substitute if woodland soil is not available.) Which soil absorbs more water? What does the force of water do to each kind of soil? Repeat, pouring the water. Answer the same questions. Repeat both steps, this time with a steep slope. This makes an effective experiment particularly if arranged with a method of catching and measuring the runoff.

Sow seeds under similar conditions in rich, dark-colored topsoil, in clean sand, and in clay subsoil (hardpan). Label. Place in sunlight, water regularly, and observe results until plants are full grown. Show value of fertility and how it may be lost when topsoil erodes.

Collect soil samples taken from thick woods and containing humus, and others taken from the open including both sandy and clayey loams. Compare as to color, weight, looseness of texture when dry. Compare this with the "feel" and texture when moist, and again when wet.

Locate a gully near the school. What caused it? Find out from technical advisors (soil technicians, county agents, foresters) how to keep it from increasing in size. (By building check dams, by sowing grass, and by planting shrubs and small trees.) Let the pupils do the necessary work. Drive stakes to mark present limits of gully and observe over a period of a year or longer to see what is happening. Keep class record.

Plant peas in two pots. Place one in a dark closet and the other in the classroom. Water daily and observe results.

Plant corn or wheat seeds in soil placed in the bottom of a chalk box or cigar box. Cut two small windows about 1/2 inch square in the sides of the box. Do not change position of boxes. Observe growth of leaves toward light.

Spread vaseline over all leaf surfaces of one potted plant and leave a similar plant untreated. Examine at intervals to note what happens when leaf pores are closed to air.

Pull up some weeds from dry and moist sites. Examine and compare root structures. Weeds growing close together will show interlocking of roots.

Dig up a well-developed dandelion plant growing in a dry location to illustrate taproot.

Try to remove the dirt from a piece of dense sod by shaking it and then by running water over it to show how earth clings to the roots.

Examine tree roots on wind-thrown trees, on roots exposed in road-building, or on stumps that have been removed.

In March, measure representative snow depths within a large natural woodland, at distances of 10 feet and 20 feet in the open on the windward side; and at distances of 10, 20, 50, and 75 feet on the leeward side. Repeat measurements for a narrow windbreak consisting of two or three rows of planted trees not over 25 feet wide. What conclusions can be drawn? (Repeat for a shelterbelt 60 or 75 feet wide, wider than the narrow windbreak but smaller than the woodland area if purpose is to show effects of width for shelterbelt purposes.)

Obtain a photographer's light meter. Take soil-surface readings in the shaded interior of a woodland. Compare with readings in small interior openings, at shaded edge of woodland, and in open ground. Obtain readings in both coniferous and deciduous types if possible and compare. Compare light readings from cultivated field, shade of shrub or brush cover, shade of young, partially-open woods, and shade of dense woods.

Fill a quart jar (or gallon can) with woodland topsoil rich in humus. Fill another quart jar with any ordinary cultivated or fully exposed soil. Slowly fill both jars to the brim with water, measuring the amount poured into each jar. Which required more water? Let stand at least 2 hours. Now pour off the excess water from each into a container for measurement. Which kind of soil absorbed the higher percentage of water?

Find a tree stump, or the end of a log, or have a cross section of a tree trunk or log brought to the classroom. Determine the age of the tree by counting the annual growth rings. What causes the

rings? Point out that the number of rings per inch of radius indicates rate of growth, and that two trees of the same size may vary greatly in age. Stump or log-end examination is particularly effective if the specimen shows evidence of release after suppression, fire scars, etc.

Arrange with ranger of State or County Forestry Division or U. S. Forest Service for the pupils to perform release cuttings or thinnings or pruning in an area of young timber growth. Ask the ranger to explain how growth rate and quality of timber depend upon light, air, and soil moisture.

Plant small trees for a memorial, community, or school forest. The area can be increased by future plantings. Government forestry or conservation agencies, and county agents are a source of guidance.

1. Determine which species are best adapted for the particular site and purpose.
2. Agree upon time to plant, method to be used, spacing of trees, organization of the work, tools needed, transporting of stock, caring for it upon arrival.
3. Train the planting crew; use division of labor.
4. Plant the trees. (Why not hold a picnic at the end of the job?)
5. Dedicate the grove. Erect an identification sign.
6. Care for the trees after planting. Consider need for protection, firebreaks, fences, cultivation, watering.

Select three contrasting samples of soil--one sandy, one clayey, and one dark loam. Put enough of each kind in a separate straight-sided glass cylinder such as a tall graduate (or a flask with a long neck of uniform diameter) to make a 2- or 3-inch column of soil. (A small amount of ammonia added will help break up the soil granules.) Cork the cylinder or flask tightly and shake vigorously for several minutes until the lumps or granules are thoroughly broken up. Some gas may

be evolved during the shaking. When adequately shaken, release the cork momentarily to let gas escape and then seat the cork firmly. Quickly invert the cylinder or flask and set in a rack or other support where it will remain undisturbed. Let settle several days. Examine. Where is the gravel in each sample? The sand? The fine clay or silt? Do all 3 samples contain some of each kind of soil? When a stream's velocity is slowed down (as represented by settling in the experiment), what kind of material will be dropped (deposited) first?

Pour a half-inch of water into a quart jar. Fill the jar with light-colored dry sand. Watch the dampness spread upward throughout the jar by capillarity. Discuss.

Collect water in a quart jar from a river or stream when the water is muddy. Let it settle; observe sediment in bottom. Where did the sediment come from?

Obtain psychrometer from general science or physics instructor. (Air temperature can be read from the dry-bulb direct.) Take readings of relative humidity and air temperature on a warm day (1) in interior of dense woodland; and (2) in open area. Compare. Save record and repeat readings on a cold winter day in same locations.

In midwinter determine depth to which sod is frozen in the open and in the interior of a woodland. Save this record. In early spring when snow disappears from the open, measure depth of snow in interior of the woodland. What influence can these two types of land have on possible spring floods?

Improve a habitat for the benefit of wildlife. (Cooperate with local conservation officials or clubs.)

1. Plant grass, trees, berry-producing shrubs for food for birds. Or plant shrubs that will form dense thickets for shelter. Construct piles of brush for shelter.

2. Improve streams for fish by building dams, deflectors, and shelters of logs or rocks in the streams either to break or to increase the force of the water. Plant trees and shrubs along streams for shade.
3. Restore an eroded area by sowing to grasses or planting trees and shrubs; by moving or removing a fence; by constructing check dams of brush and rocks in eroded gullies.
4. Develop springs or other watering places for birds or wild animals.
5. See that flushing-bars are attached to mowing machines to protect nests of game birds in fields.
6. Plant food species for game around old mining areas, on overgrazed or denuded areas.
7. Clear 25 feet on the edge of woodland adjacent to an old field and plant to food-producing shrubs.

Observe effects of improvements on wildlife population.

Carry out a landscaping project on the school grounds. Cooperate with school authorities, planners, conservation clubs.

Carry out a roadside-improvement project. Plant trees or shrubs, seed with grass, remove debris, fire hazards, etc. Cooperate with city, county, and state supervisory and road officials.

Contact forest or park officials and arrange to build or improve a woods trail, a nature trail, or a canoe portage.

Obtain correct plant identifications, make permanent labels, and attach to trees and shrubs in a community park.

EXHIBITS OR COLLECTIONS

In themselves, exhibits and collections seldom contribute much directly to conservation learning. They have some exploratory, creative, or interest value and so are included here. Their use should be tied in with broader aspects of conservation wherever possible.

Exhibit specimens of poison oak and poison ivy with labels showing treatment. Obtain information from school nurse.

Make a collection of forest products for exhibit. Write to the Forest Service for wall chart in color called "What We Get From Trees."

Collect and label samples of different woods.

Prepare exhibit of cross section of tree stem. Label rings, rays, bark, cambium, heartwood, sapwood. Show size at various ages by labeling growth areas with gummed tape.

Prepare exhibit of white pines showing results of deer browsing, insect attack, or blister rust.

In spring or fall prepare and label a collection of tree leaves--both coniferous and broad-leaved species. In winter draw twigs showing characteristics of buds, leaf scars, etc.

Make models of--

Fire lookout tower.
Areas logged by destructive methods and by good forestry methods.
Burned-over forest area, showing effect on water, timber, wildlife, soil.

Prepare a map of woodlands of the county or state, or one showing regional forest types. Or make a large map with a color legend of school or county forest.

Prepare a collection with labels showing which species of wildflowers may be picked indiscriminately, sparingly, and not at all.

From State Conservation Department or U. S. Forest Service, obtain Smokey Bear fire prevention posters and display them throughout the school.

Prepare model of grazed and ungrazed woods, before and after the old trees start dying.

Prepare a picture board showing native wild animals and birds (either clipped pictures or original drawings).

Prepare a large sketch showing how wildlife on a farm could benefit from improved habitats.

Make a collection of wildlife foods; label.

Prepare a large diagrammatic wall sketch showing comparative features of (1) unplanned, and (2) planned drainage basin with managed watershed and series of utilization projects downstream.

Make a drawing showing the water cycle--precipitation, runoff, deep seepage, evaporation, etc.

Draw or make model of a protected and an unprotected watershed showing effects on floods and siltation downstream.

Make models of a campsite left clean and one left without cleanup, or of different types of recreation in the forest.

Prepare color map showing national and state forests, and state and county parks.

SUBJECTS TO EXPLORE FURTHER

Animals of the soil and how they benefit forests.
How forest soil is made.
History of forest conservation movement.
Things at home and at school made from wood.
Enemies of the forest (insects, disease, fire, careless cutting, grazing, etc.).
How the forest served the early settlers.
How forests regulate streamflow.
Logging in the state.
Our forests--then and now.
Manufacture of paper, or lumber, or other wood products.
Destructive cutting versus good forestry.
The forest types of the United States.
Forest-tree cones and seeds.
The water cycle.
The problem of water pollution.
How forest cover affects water supplies.
What can be done about floods.
How birds and wild animals protect themselves.
Wild animals and birds of the forest.
Helpful snakes.
Helpful birds.
Fur trapping in the early days.
Game laws we should know about.
Practices that injure wildlife.
Income from sales of hunting and fishing licenses.
Forest recreation in our state (nation).
Recreation as an industry.
Our national and state forests, parks, and monuments.
Wilderness areas in national forests and national parks.
Famous conservation leaders (Gifford Pinchot, Theodore Roosevelt, etc.)
Young people's projects.
    Boy Scouts: Conservation merit badge.
    Campfire Girls: Nature lore honors.
    Girl Scouts: Nature badges.
    4-H Club projects.
The work of the (federal, state, county) conservation agencies.
Conservation organizations of the state (nation).

SUBJECTS TO WRITE OR TALK ABOUT

Wise use of pastures.
What makes forest soil fertile.
What trees take from the soil and what they put back.
What we lose when the forest burns.
How you and I can prevent forest fires.
Interesting old (or historically important) local trees.
How trees are made into lumber (or pulp, etc.).
Great forest fires of history.
This material called "humus."
Our "best" commercial tree species.
What forest products research has done for the defense effort.
Important coniferous (or deciduous) species.
The importance of regulated water supplies to industry.
Rainfall (and snowfall) records of our community.
"Control of water begins on the headwaters."
The work of (state, federal) forest experiment stations.
Profits from farm forests.
Shelterbelts and windbreaks.
How farmers can help wildlife.
What it means to be a good sportsman.
Why we have fish and game laws.
How forest fires injure wildlife.
The value of "edge."
How streams can be improved for fish life.
How to set out and care for a forest plantation.
The Christmas-tree industry.
Forestry on private lands in our state.
Safety in camp.
Poor campers I have seen.
Good manners in the outdoors.
Diseases or insects that attack the forest.
Forest recreation in our state.
Fighting forest fires.
Modern deer-management methods.
Research work of the national Forest Products Laboratory (Madison, Wisconsin).
Industrial forestry.
Conservation news in the newspapers, on radio and television.

Conservation in school and at home (handle materials carefully, use supplies economically, respect the rights of others, etc.).
Let's start a Conservation Club.
We need a conservation bulletin board.
Ghost towns.
Leaders in the conservation movement.
Our federal, state, and county conservation agencies.
Local conservation organizations.
What resource management means.

POSTERS TO MAKE

County (state) maps of resources
Wise use or waste?
Let's manage our resources
Conservation Week
Outdoor good manners
Resources give America strength
Only YOU can prevent forest fires
Wildlife Restoration Week
Keep water clean
Be a good camper
Conservation begins at home
Grass and brush fires--poor business
Forest enemies
Safety "don'ts" for the outdoors
For a better landscape
Guard water supplies
Conservation pledge
Clean highways
This?--or this?
Cows make poor foresters
We need a school forest

THEMES FOR SLOGAN CONTESTS

Prevent forest fires
Stop erosion
America depends upon natural resources
Improve wildlife habitat
Better fishing and hunting
Stop wasting resources
Conservation Week

Clean waters
Proper use of pastures
Every acre to its best use

PLEDGES AND CODES TO FORMULATE

Sportsman's Code
Outdoor Good Manners
Conservation Pledge
Code of the Woodsman
Camper's Creed
What Conservation Means
For a Strong America

PICTURE COLLECTIONS

Unusual products made from wood.
The part forests played in the development of our country.
Wood-using industries.
Protecting our forests from fire.
Important species of forest trees.
Forests of the future (plantations).
Uses of water.
Waterpower development.
Local water supply.
Floods.
Wildlife of our forests (or birds, or wild animals, or fish, or waterfowl).
Hunting and fishing in the forest.
Our vacationlands.
Conservation in the news (clippings).
Waste--or conservation--in using resources?

PANEL DISCUSSIONS

Good forests--good schools.
The small woodland--key to forest production.
What forests mean to our community.
How farmers can help wildlife.
Good manners in the outdoors.
How forests affect our streams.
Why we need better resource management today.
Natural resources--foundations for freedom.
The meaning of conservation.
Schools can teach respect for land.

U.S. GOVERNMENT PRINTING OFFICE : 1964—O-756-582


WOOD · WATER · FORAGE · WILDLIFE · RECREATION
FOREST SERVICE
US
DEPARTMENT OF AGRICULTURE